

DISCRETE MATH QUIZ: TRUTH TABLES AND, OR OR NEGATION

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Complete the following Truth Table

(1) $A \vee B$

A	B	$A \vee B$
T	T	
T	F	
F	T	
F	F	

(2) $A \wedge B$

A	B	$A \wedge B$
T	T	
T	F	
F	T	
F	F	

(3) $A \wedge C$

A	B	C	$A \vee B$	$A \wedge C$
T	T	T		
T	T	F		
T	F	T		
T	F	F		
F	T	T		
F	T	F		
F	F	T		
F	F	F		

(4) $(A \rightarrow B) \rightarrow C$

A	B	C	$A \rightarrow B$	$(A \rightarrow B) \rightarrow C$
T	T	T		
T	T	F		
T	F	T		
T	F	F		
F	T	T		
F	T	F		
F	F	T		
F	F	F		

$$(5) \quad A, (A \wedge B)$$

A	B	$A \wedge B$	
T	T		
T	F		
F	T		
F	F		

$$(6) \quad (B \vee (A))$$

A	B	C	A	$(B \vee (A))$	$(B \vee (A))$
T	T	T			
T	T	F			
T	F	T			
T	F	F			
F	T	T			
F	T	F			
F	F	T			
F	F	F			

$$(7) \quad (B \vee A) \Leftrightarrow C$$

A	B	C	$(B \vee A)$	$(B \vee A) \Leftrightarrow C$
T	T	T		
T	T	F		
T	F	T		
T	F	F		
F	T	T		
F	T	F		
F	F	T		
F	F	F		

$$(8) \quad (B \wedge C) \Leftrightarrow A$$

A	B	C	$B \vee C$	$(B \wedge C) \Leftrightarrow A$
T	T	T		
T	T	F		
T	F	T		
T	F	F		
F	T	T		
F	T	F		
F	F	T		
F	F	F		